CLAIMS:

1. A method for producing electronic video signals representative of color images of a scene, comprising the steps of:

providing a sensor having a color filter thereover;

providing a motion picture film camera type of lens system that focuses light from said image onto said color filter and sensor; and

producing electronic video signals from the output of said sensor;

said color filter having a pattern RYRY... on alternating lines, and a pattern YRYR... on every other line.

2. The method as defined by claim 1, further comprising the step of interposing a low pass prefilter before said color filter.

3. The method as defined by claim 1, wherein said step of producing electronic video signals from the output of said sensor includes providing even and odd registers, multiplexing one of said register outputs to separate Y and R, multiplexing the other register output to separate Y and B, combining the separated Y from the respective multiplexers to obtain an output luminance

signal, and combining the separated R and B signals with respective stored versions thereof to obtain output color signals.

4. The method as defined by claim 2, wherein said step of producing electronic video signals from the output of said sensor includes providing even and odd registers, multiplexing one of said register outputs to separate Y and R, multiplexing the other register output to separate Y and B, combining the separated Y from the respective multiplexers to obtain an output luminance signal, and combining the separated R and B signals with respective stored versions thereof to obtain output color signals.

5. A method for producing electronic video signals representative of color images of a scene, comprising the steps of:

providing a sensor having a color filter thereover;

providing a motion picture film camera type of lens system that focuses light from said image onto said color filter and sensor; and

producing electronic video signals from the output of said sensor;

said sensor comprising a sensor array having alternate lines offset by half a pixel spacing and said color filter having

repeating R, G, and B patterns offset on successive lines so that R pixels are arranged diagonally, G pixels are arranged diagonally, and B pixels are arranged diagonally.

6. The method as defined by claim 5, further comprising the step of interposing a low pass prefilter before said color filter.

7. Apparatus for producing electronic video signals representative of color images of a scene, comprising:

a sensor having a color filter thereover;

a motion picture film camera type of lens system that focuses light from said image onto said color filter and sensor; and

means for producing electronic video signals from the output of said sensor;

said color filter having a pattern RYRY... on alternating lines, and a pattern YRYR... on every other line.

8. Apparatus as defined by claim 7, further comprising the a low pass prefilter interposed before said color filter.

9. Apparatus for producing electronic video signals representative of color images of a scene, comprising:

a sensor having a color filter thereover;

a motion picture film camera type of lens system that focuses light from said image onto said color filter and sensor; and

means for producing electronic video signals from the output of said sensor;

said sensor comprising a sensor array having alternate lines offset by half a pixel spacing and said color filter having repeating R, G, and B patterns offset on successive lines so that R pixels are arranged diagonally, G pixels are arranged diagonally, and B pixels are arranged diagonally.

10. Apparatus as defined by claim 9, further comprising a low pass prefilter interposed before said color filter.